Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-2. (Canceled).

3. (Previously Presented) A method for controlling a transmission control protocol window size in an asynchronous transfer mode network by using an explicit rate value in a resource management cell of a network during data transmission from a transmitting side ATM terminal to a receiving side ATM terminal, wherein the window size is computed by the Expression wherein,

window size = MIN

('credit' is an amount of data which the transmission control protocol receiving side can receive, 'cwnd' is a congestion window, cwnd = transmission control protocol throughput * estimated_RTT * safety_factor),

'estimated_RTT' is an estimated round trip time of the packet,

'safety_factor(s)' is a numerical value compensating for variations in network states and RTT,

$$\text{TCP throughput} = \text{last\_ER} * \frac{48}{53} * \frac{31}{32} * \frac{TCP\_MSS}{TCP\_MSS + 56bytes}$$

'last_ER' is an ER value in the currently-received RM cell, and

'TCP_MSS' is a maximum segment size of the transmission control protocol level.

4. (Previously Presented) A method for controlling a transmission control protocol window size in an asynchronous transfer mode network, comprising:

a step for an ATM transmitting terminal to receive a resource management cell;

a step for transmitting an explicit rate value in the received resource management cell to a transmission control protocol level in the ATM transmitting terminal;

a step for setting a congestion window size to an initial value, when the explicit rate value is received;

a step for computing the congestion window size, when an acknowledgment signal is received from an ATM receiving terminal; and

a step for computing a window size, when the congestion window size is computed, and for transmitting a data to the ATM receiving terminal according to the computed window size.

5. (Previously Presented) The method according to claim 4, wherein the congestion window size is computed by the Expression wherein,

congestion window size = transmission control protocol throughput * estimated_RTT * safety_factor

('estimated_RTT' is an estimated round trip time of the packet, and 'safety_factor(s)' is a numerical value compensating for variations in network states and RTT).

6. (Original) The method according to claim 5, wherein the transmission control protocol throughput is computed by the Expression wherein,

$$\text{TCP throughput} = \text{last\_ER} * \frac{48}{53} * \frac{31}{32} * \frac{TCP\_MSS}{TCP\_MSS + 56bytes}$$

('last_ER' is an ER value in the currently-received RM cell, and 'TCP_MSS' is a maximum segment size of the transmission control protocol level).

7. (Original) The method according to claim 4, wherein the window size is computed by the Expression wherein,

window size = MIN [credit, cwnd],

('credit' is an amount of data which the transmission control protocol receiving side can receive, and 'cwnd' is a congestion window).

8. (Previously Presented) The method of according to claim 4, wherein the initial value is '1'.

9. (New) A method for controlling a transmission control protocol window size in a asynchronous transfer mode network by using an explicit rate value in a resource management cell of a network during data transmission from a transmitting side ATM terminal to a receiving

side ATM terminal, the receiving side ATM terminal being configured to receive a maximum window size of data, the method comprising:

determining the maximum window size capable of being received by the receiving side ATM terminal;

determining a congestion window, the congestion window being calculated based on a transmission control protocol throughput, an estimated round trip time of a packet, and a numeric value compensating for variations in network states, the transmission control protocol throughput being determined based on the explicit rate value in the resource management cell and a maximum segment size of a transmission control protocol level; and

setting the window size to the lesser of the congestion window size and the maximum window size capable of being received by the receiving side ATM terminal.